



## EXECUTIVE SUMMARY

During its 2004 session, the Legislature enacted The Maine Wind Energy Act, which directed the Public Utilities Commission (“Commission”) to conduct a study of a variety of specified issues regarding wind power development. This report is in response to that directive and presents an assessment of the viability of wind power, the potential for its development in the State and the available means for effective promotion of wind power if the Legislature determines such action to be in the public interest.

The report finds that there is substantial potential for the development of wind power facilities throughout the State, including a realistic potential for development on tribal lands. The report concludes that the potential for wind power development that is economic, environmentally sound and publicly acceptable is not likely to exceed approximately a thousand megawatts, at least for the foreseeable future, and that there are sufficient markets available to wind power facilities developed in Maine. The report also finds that wind power does not present any serious or insurmountable grid system reliability or market operation concerns, nor is wind power development in Maine likely to have substantial impacts on existing generating facilities beyond those resulting from possible changes in market prices.

The report concludes that the cost wind generation, assuming the continued availability of the federal production tax credit (“PTC”), is competitive with the cost of other generation resources in New England. Accordingly, the report finds that no additional financial assistance or subsidies beyond the PTC are likely necessary to allow grid-scale projects to compete on a cost basis in the current electricity market.

However, the report also concludes that the ability to obtain long-term project financing is a significant obstacle to wind generation development. Long-term project financing is generally dependent on the ability to obtain long-term contracts for the output and obtaining such long-term contracts has become more difficult since industry restructuring. The report notes that this situation is not specific to wind power and that all types of generation facilities face difficulty in obtaining financing in the current market. Because wind generation projects are so capital intensive, however, the economics are more sensitive to the cost of financing than other sources of generation.

The report does not offer a recommendation of whether the active promotion of wind power should be a part of the State’s energy policy or whether public or ratepayer funds should be used to aid wind power development. However, the report identifies several mechanisms that the Legislature could consider as a means to promote wind generation development if it determines that some level of action is warranted. The report also recommends that promotional mechanisms should be implemented using a competitive process to minimize the cost to the public and should be designed to balance the risks to taxpayers or ratepayers with the potential benefits. The potential mechanisms identified in the report are as follows:

**Renewable Portfolio Standard:** The report concludes that a revised renewable portfolio standard (“RPS”) can be an effective means to promote wind generation and recommends its adoption if the Legislature decides to promote wind development within the State and the region through some level of public subsidy. Because the cost of generating with wind is competitive with other generation sources and because the

RPSs in Massachusetts and Connecticut are stimulating wind power development in Maine, a revised RPS would do little in the short-term to encourage new renewable development. However, it would signal the State's commitment to wind power and would ensure that Maine does its share to promote regional wind development over the long-term.

System Benefit Charge: The report finds that a system benefit charge ("SBC") can be an effective mechanism to promote wind generation, noting that it can be designed so that only facilities in Maine benefit through the receipt of funds and that an SBC may be able to provide some aid in obtaining project financing through a long-term commitment for assistance. However, the report notes that an SBC requires significant resources to administer. \_

FAME Financing: The report indicates that the Legislature could assist wind projects to obtain financing through the use of FAME. If appropriate legislative findings are made, ratepayer funding could be used for FAME loan guarantees. The report also suggests that rather than guaranteeing full projects, the Legislature could authorize FAME to guarantee the combined price of energy and renewable credits or to insure only a portion of the debt.

Tax Incentives: The report recommends against using state tax incentives as a means to promote grid scale wind generation development in that other measures could be more effective. Although tax incentives will lower the cost of the project, wind generation is already cost competitive and additional tax incentives are not likely to make a significant difference in the receipt of financing. However, the report considers tax incentives as an appropriate support mechanism for smaller on-site or community wind projects.

State or State-Mandated Purchases: The report does not reach a conclusion on whether the State should enter into long-term purchases of wind power for its own retail purposes. However, the report does recommend against imposing any State-mandated purchase obligations for purposes of supplying the State's electricity consumers. Mandated long-term power purchase requirements would move in the opposite direction from that contemplated by industry restructuring and could result in new stranded costs.

Environmental Permitting: The report recommends that the Legislature discuss with the DEP and LURC the merits of the current regulatory scheme and alternatives that may provide for an improved approach to environmental permitting. In addition, the report suggests that consideration be given to explicitly allowing the DEP to consider the benefits of reduced air emissions. The report also recommends against implementing separate regulations or application processes for wind power at this early stage of the industry's development and notes that an effort to pre-identify areas of the State as environmentally appropriate or inappropriate for wind development is not likely to be fruitful. However, the report views efforts of appropriate agencies to provide non-site specific guidelines and standards regarding wind power development as holding substantial potential in creating a higher degree of predictability with respect to agency decisions.

Public Acceptance: The report notes that public opposition can be one of the major barriers to wind development and that some public reaction may result from a lack of familiarity with wind power or the damage caused by fossil-fuel emissions. The report

suggests that a campaign aimed at promoting the benefits of wind power could help modify public perception and reduce opposition. The report indicates that, if the Legislature is so inclined, it could modify the legislation that currently obligates the Commission to inform consumers about the benefits and opportunities for purchasing renewable power without promoting any particular renewable resources to include a requirement that the Commission educate the public specifically about the benefits of wind power.